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# Preparedness for Natural Disasters



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# Preparedness for natural disasters

- Pre disaster phase
- Post disaster phase



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# Pre disaster phase

- **Risk identification**
- **Mitigation**
- **Risk transfer**
- **Preparedness**



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# Risk Identification



- Hazard Assessment
- Vulnerability Assessment





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# HAZARD ASSESSMENT

## HAZARD ASSESSMENT & PROBABILITY-

Hazard wise

- Frequency
- Magnitude
- Location



## HISTORY OF DISASTER IN THE PAST 10 YEARS

Type of Hazard	Year of Occurrence	Effect
Drought	2004	GPs affected-13, Villages affected-61, Villages (crop loss between 50%-74%-59, Crop loss more than 75%-2)
Cyclone	2005	GPs affected-13, Villages affected -88, Population affected-69,000, Crop area affected-Boats-802, Nets-1371, Crop area affected 3089 Hectares, Human life lost-2, Houses collapsed-



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## SEASONALITY OF DISASTER

**Type of  
hazard**

**Month of occurrence**

**Jan Feb Mar Apr May June July Aug Sep Oct Nov Dec**

- **Flood**
- **Cyclone**
- **Drought**
- **Earthquake**



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## VULNERABILITY & RISK ASSESSMENT

<b>Type of hazard</b>	<b>Potential Impact</b>	<b>Vulnerable Areas</b>
Cyclone	Loss of crop, infrastructure, human and bovine life, livelihoods, houses, Pvt & Public property etc	Mandals, GPs, Villages, Habitations
Drought	Loss of crop, livelihoods, scarcity of food, fodder, water, etc	Mandals, GPs, Villages, Habitations





# Mitigation

- Physical/structural mitigation works
- Land-use planning and building codes
- Education, training and awareness about risks and prevention



# MITIGATION PLAN

- **SECTOR WISE VULNERABILITY REDUCTION MEASURES**

Type of sector	Sub Sector	Mitigation measures	Responsible dept	Time frame	Responsible officer
Health	1.IEC 2.Vaccination 3.Training	1.Distribution of leaflets, posters wall painting, 2Procurement & stock piling of vaccines. 3Impart trg on sanitation, first Aid to Staff, Volunteers&NGO	Health	Normal Period	Check lists



# Risk Transfer

- **Insurance (Individual, Family, Community)**
- **Insurance of public infrastructure and private assets**
- **Privatization of public services with safety regulation (energy, water and transportation)**
- **Calamity Funds**
  - A) Calamity Relief Fund  
CRF-75% central govt & 25% State govt
  - B) National Calamity Contingency Fund



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# Preparedness

- Development of Disaster Management Plan
- Setting of Control Room
- Setting of Wireless Station
- Constitution of Flood Zones
- Deployment of Country Boats
- Storage and Stock Piling of Emergency Relief
- Identification of Weak and Vulnerable Points
- Awareness Generation
- Mock Drill
- Selection of Flood / Cyclone Shelters/ Mounds
- Alternative Communication and Road Net Works
- Transport
- Liaison
- Provision of rescue kits



## Centurion UNIVERSITY arrangement of vehicle for relief and rescue operation

- To watch and ward belongings of evacuees and maintenance of law and order
- Post flood and cyclone damage assessment
- Restoration of electrical installation
- Escort for supply of relief materials
- Opening of fair price shops
- Arrangement materials for temporary shelter
- Free Kitchen
- Food for Work programme
- Cattle camps
- Relief



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# Agriculture

- Crop weather watch group formation
- Functioning of control room
- Receive information from the field and place before higher authority
- Pre-positioning of seeds/pesticides
- Public information centers



# Irrigation

- Closure of past breaches in river and canal embankments
- Round the clock guarding of weak points
- Gauge reading of different river points
- Squad to watch and ward the weak points
- Pre-positioning of sandbags and other equipments.
- Preparation of list of weak and vulnerable points
- Removal of obstruction from all the channels
- Legal action against the obstructers
- Keeping the drainage clear
- Removal of old and dead trees before onset of monsoon in order to avoid road blockage during calamities



# Evacuation

- To warn people about the impending danger
- To leave for safer places
- Arrangement of boats/vehicles etc. for evacuation
- Evacuate people of marooned areas and administer emergent relief
- Deployment of police for peace keeping while evacuation
- Mobilize people to go to identified/safer shelters
- Propositioning of food stuff and adequate drinking water at the
- shelter places





# Search & Rescue

- Deployment of police/fire brigade for search and rescue
- Transportation of the injured to the hospital
- Pre-positioning of live saving drugs and medicines
- Co-ordination with the NCC/Civil Defense etc. for rescue operation



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# Medical Aid

- **Deployment of the in the cut-off areas with medicine**
- **Stock piling and of required medicines/ORS packets/Chlorine tablets**
- **Treatment of the wounded**
- **Transportation of the injured to hospitals**
- **Awareness messages to stop the outbreak of epidemics**
- **Disease surveillance and transmission of reports to the higher authorities on a daily basis.**
- **Vaccination**
- **Constitute mobile teams and visit the worst affected areas**
- **Dis-infection of water sources**
- **Identification of site operation camps**
- **To obtain/transmit information on natural calamities to field functionaries**
- **Advance inoculation programme in the flood prone areas**
- **Arrangement of fodder/medicines for the animals Vaccination**
- **Site operation camps**
- **Carcasses disposal**



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# Post Disaster Phase

- Emergency response
- Rehabilitation & Reconstruction



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# Emergency Response

- Humanitarian assistance
- Sanitation, temporary repairs, and restoration of services
- Damage assessment
- Mobilization of resources



# Rehabilitation & Reconstruction

- Rehabilitation and reconstruction of damaged critical infrastructure
- Revitalization of for affected sectors
- Macro economic and budget management (stabilization and protection of social expenditures)
- Incorporation of disaster mitigation components in reconstruction activities



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**Thank You**

# Preparedness

- Early warning systems and communication systems
- Evacuation ,Shelter facilities and recovery plans
- Contingency planning
- Networks of emergency responders